Is LNG the Fuel of the Future?

LNG Fuel is fast becoming the go-to form of energy for countries moving away from coal and petroleum. Liquified Natural Gas (LNG) has been labeled as a 'transition fuel' in the shift towards a low-carbon future. This high-capacity energy source produces less carbon dioxide emissions than other fossil fuels and can be used to meet growing power demands in both developed and developing economies prior to a complete shift towards renewable energy.

<u>China</u> is already one of the world's leading LNG consumers and the rest of Asia is set to <u>follow suit</u> in the coming decades. We expect global demand will be met by <u>several major projects</u>, which are earmarked to start operations by 2027. This will improve access and transport of natural gas in several regions.

Is LNG a fuel?

Yes, LNG <u>is a fuel</u>. Due to Liquified Natural Gas' ability to be used as a heat and power source, it is considered a fuel – just like coal, petroleum, or diesel. In general, LNG is a safe and versatile fuel-source. It can be burned in its current (liquid) form or be vaporized to become natural gas. In both cases, it is a fuel with a high energy capacity that is versatile enough to be used for several activities.



Source: Rappler

What type of fuel is LNG?

LNG itself is the liquid form of natural gas. It is created <u>by cooling</u> natural gas to $-162 \degree C$ ($-260 \degree F$), where it becomes a liquid and occupies far less space than as a gas - 1/600th the volume to be exact. This makes transporting natural gas far easier and safer.

LNG itself <u>can be used</u> to power vehicles, replacing fuels with higher carbon dioxide emissions. However, it is often vaporized back into a gas to be in electrical grids or heating.

What is LNG fuel used for?

As mentioned above, LNG is used in several ways. Its primary use is to transport natural gas, but it can also <u>power vehicles</u> of all sizes. After transportation, LNG is often returned to its gaseous state, which is harnessed in residential, commercial, and industrial settings for heating, cooking, and power generation. Unknown to many, LNG plays a major role in the the electric grids of many countries. For example, in 2009 in the <u>United States</u> natural gas accounted for over 75% of the commercial and residential sector's energy needs, 18% of the country's electricity and 3% of all transportation vehicles.

Is LNG better than diesel?

Liquified Natural Gas is an upgrade over diesel and other fossil fuels. It has a lower maintenance cost, is safe to use and transport and pollutes up to 90% less than diesel. In <u>comparison</u>, the price of diesel is volatile - which LNG experienced in 2021 but is expected to stabilize. Furthermore, diesel is also heavily polluting and has a much higher ignition risk. Natural gas is odorless, colorless, non-toxic and non-corrosive. Its properties make it arguably the cleanest and most efficient fossil fuel on the <u>market</u>.



Source: Clean Energy Fuels

LNG's Role for the Future

Global demand for LNG is skyrocketing as the world continues to transition towards a low-carbon economic system and a growing demand for energy. LNG fuel is more cost-efficient, produces less carbon dioxide and has more day-to-day applications than many other fossil fuels.

The construction of major LNG hubs in Asia and other major consuming regions will help ensure that supply can be met, while keeping operating cost and overhead low. Both natural gas and LNG have an important role to play by bridging our current fossil fuel dominant system to renewable, low-carbon alternatives.